

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (original): A holographic viewing device comprising a frame and a computer-generated hologram fitted in said frame, said computer-generated hologram constructed as a transmission Fourier transform hologram, wherein said computer-generated hologram comprises minuscule cells having pitches δ_x and δ_y with a reconstruction image area defined by a range of spreading of \pm first-order diffracted light of given wavelength from a diffraction grating having grating pitches $2\delta_x$ and $2\delta_y$ that are twice as large as said pitches of cells, and an input image pattern reconstructed at said wavelength is recorded in said computer-generated hologram in such a way that a light portion of said input image pattern overlaps a center of said reconstruction image area.
2. (original): The holographic viewing device according to claim 1, wherein said computer-generated hologram comprises a phase hologram having a multivalued phase distribution.
3. (original): A computer-generated hologram constructed as a transmission Fourier transform hologram for a holographic viewing device, wherein said computer-generated hologram comprises minuscule cells having pitches δ_x , and δ_y with a

reconstruction image area defined by a range of spreading 25 of \pm first-order diffracted light of given wavelength from

a diffraction grating having grating pitches 26 and 28_y that are twice as large as said pitches of cells, and an

input image pattern reconstructed at said wavelength is recorded in said computer-generated hologram in such a way that a light portion of said input image pattern overlaps a center of said reconstruction image area.

4. (original): The computer-generated hologram according to claim 3, which comprises a phase hologram having a multivalued phase distribution.

5. (new): A holographic viewing device comprising:

a frame;

a computer generated hologram fitted in said frame;

the computer generated hologram further including:

cells having pitches δ_x and δ_y ;

a reconstruction image area defined by a range of spreading \pm first-order diffracted light of a given wavelength from a diffraction grating having pitches $2\delta_x$ and $2\delta_y$;

an input image pattern reconstructed at said wavelength recorded in the hologram in such a way that at least a part of a light portion of the input image overlaps a spot created by a zero order light being transmitted.

6. (new): The holographic viewing device of claim 5, wherein said computer-generated hologram comprised a phase hologram having a multi-valued phase distribution.

7. (new): A computer generated hologram comprising:

cells having pitches δ_x and δ_y ;

a reconstruction image area defined by a range of spreading \pm first-order diffracted light of a given wavelength from a diffraction grating having pitches $2\delta_x$ and $2\delta_y$;

an input image pattern reconstructed at said wavelength recorded in the hologram in such a way that at least a part of a light portion of the input image overlaps a spot created by a zero order light being transmitted.

8. (new): The computer generated hologram of claim 7, wherein said computer-generated hologram comprised a phase hologram having a multi-valued phase distribution.